

1	IN THE UNITED STATES DISTRICT COURT	
2	MIDDLE DISTRICT OF NORTH CAROLINA	
3	COMMON CAUSE, et al.,) Greensboro, North Carolina
4) October 18, 2017
5	Plaintiffs,)
6	v.) Case No. 1:16CV1026
7)
8	ROBERT A. RUCHO, in his)
9	official capacity as Chairman)
10	of the North Carolina Senate)
11	Redistricting Committee for)
12	the 2016 Extra Session and)
13	Co-Chairman of the Joint Select)
14	Committee on Congressional)
15	Redistricting, et al.,)
16)
17	Defendants.) Bench Trial
18)
19	LEAGUE OF WOMEN VOTERS OF) Volume III of IV
20	NORTH CAROLINA, WILLIAM)
21	COLLINS, ELLIOTT FELDMAN,)
22	CAROL FAULKNER FOX,)
23	ANNETTE LOVE, MARIA PALMER,)
24	GUNTHER PECK, ERSILA PHELPS,)
25	JOHN QUINN, III, AARON SARVER,)
	JANIE SMITH SUMPTER,)
	ELIZABETH TORRES EVANS, and)
	WILLIS WILLIAMS,)
)
	Plaintiffs,)
)
	v.) Case No. 1:16CV1164
)
	ROBERT A. RUCHO, in his)
	official capacity as Chairman)
	of the North Carolina Senate)
	Redistricting Committee for)
	the 2016 Extra Session and)
	Co-Chairman of the 2016 Joint)
	Select Committee on)
	Congressional Redistricting,)
)
	DAVID R. LEWIS, in his)
	official capacity as Chairman)
	of the North Carolina House of)
	Representatives Redistricting)
	Committee for the 2016 Extra)
	Session and Co-Chairman of the)

1 2016 Joint Select Committee on
 Congressional Redistricting,)
 2)
 TIMOTHY K. MOORE, in his)
 3 official capacity as Speaker)
 of the North Carolina House of)
 4 Representatives,)
)
 5 PHILIP E. BERGER, in his)
 official capacity as President)
 6 Pro Tempore of the North)
 Carolina Senate,)
 7)
 A. GRANT WHITNEY, JR., in his)
 8 official capacity as Chairman)
 and Acting on Behalf of the)
 9 North Carolina State Board of)
 Elections,)
 10)
 THE NORTH CAROLINA STATE BOARD)
 11 OF ELECTIONS, and)
 THE STATE OF NORTH CAROLINA,)
 12)
 Defendants.)
 13)

14 PROCEEDINGS HEARD BEFORE:

15 **WILLIAM L. OSTEEN, JR.,**
 16 CHIEF U.S. DISTRICT JUDGE FOR THE MIDDLE DISTRICT OF N.C.

17 **W. EARL BRITT**
 18 SENIOR U.S. DISTRICT JUDGE FOR THE EASTERN DISTRICT OF N.C.

19 **JAMES A. WYNN, JR.**
 CIRCUIT JUDGE OF THE U.S. COURT OF APPEALS FOR THE 4TH CIRCUIT

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24 Proceedings reported by stenotype reporter.
25 Transcript produced by Computer-Aided Transcription.

I N D E X

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P R O C E E D I N G S

(At 10:07 a.m., proceedings commenced.)

THE COURT: All right. We're back again ready to go. Let me ask the parties, in terms of testimony and evidence today, what do you anticipate? One expert witness or will there be anything else?

And before you answer, I'll give you a little hint. The reason I'm asking is if it's one expert, then we may take a break after a couple of hours for a few minutes and just keep on going until we get it done and finish, but tell me what you anticipate today.

MR. STRACH: We'll have one expert today, Your Honor. I think the direct will go probably no more than two hours.

JUDGE OSTEEEN: Did you all make any plans or need to call anybody today, or we just have the one expert witness today?

MS. EARLS: Well, Your Honor, I think we were inclined to take advantage of the suggestion you made, and if we do have rebuttal for this -- to this expert testimony, we would try to put it on today.

JUDGE OSTEEEN: You still anticipate that it would be relatively short? I think you said 20 to 30 minutes.

MS. EARLS: I do anticipate it would be short, and I just want to be clear. Our understanding would be then, if Professor Jackman also had rebuttal testimony to the expert

1 being presented tomorrow, that there would be a brief
2 opportunity following that.

3 JUDGE OSTEEEN: That's what I outlined for you
4 yesterday. So we're looking at probably four hours total
5 direct and cross of an expert, and then maybe 20 to 30 minutes
6 of rebuttal?

7 MS. EARLS: I think that's correct, Your Honor.

8 JUDGE OSTEEEN: Does that seem right to you?

9 MR. STRACH: Yes. If it's 30 minutes of direct, I
10 can't imagine the cross would be more than 10, 15.

11 JUDGE OSTEEEN: All right. Let me consult with my --
12 (Off-the-record discussion.)

13 JUDGE OSTEEEN: Judge Britt wants to go straight
14 through with no break, but I'm not man enough. All right.
15 We're going to just plow ahead. We're probably take maybe a
16 20-minute break, a little longer break than usual, after a
17 couple hours, maybe when direct stops or somewhere in that
18 range, and we'll go ahead until we finish and then eat a late
19 lunch. I hope everybody got something to eat before they came.

20 Mr. Strach, you can call your first witness.

21 MS. EARLS: Your Honor, actually, excuse me, my
22 apologies, but we need to admit a few more exhibits to then
23 close the Plaintiffs' case.

24 JUDGE OSTEEEN: Okay.

25 MS. EARLS: And in addition to exhibits, there are

1 two matters that I need the Courts' guidance on. We have a
2 stipulation as to the League of Women Voters of North Carolina
3 Plaintiffs. It's in written form that the parties have agreed
4 to. I can either -- I'm just not clear whether --

5 JUDGE OSTEEEN: My preference is to mark it as an
6 exhibit and just hand it up. If it was a jury trial, I would
7 let you read it, but a bench trial, just mark it and hand it
8 up.

9 No objection to the affidavit?

10 MR. STRACH: The affidavit or the stipulation?

11 MS. EARLS: First, I'm talking about the stipulation.

12 JUDGE OSTEEEN: Sorry, stipulation.

13 MR. STRACH: No objection to the stipulation.

14 MS. EARLS: And then the second matter that we have
15 is a declaration of Timothy Stallman, and this is in relation
16 to the agreement I mentioned yesterday where, in lieu of him
17 coming to testify, the Plaintiffs would be allowed to submit
18 his declaration without objection, and the Defendants would be
19 filing a response by Dr. Hofeller.

20 THE COURT: Okay. So there's an affidavit and a
21 counteraffidavit?

22 MR. STRACH: That's right, although just to be clear,
23 we might not be able to get that filed until later in the week
24 or early next week, but that is the plan.

25 JUDGE OSTEEEN: Yeah, that's fine. You don't

1 anticipate any issues in terms of the content of the affidavit;
2 it's just going to take a little bit of time to get it filed?

3 MR. STRACH: I think that's right. I think it's
4 going to be pretty long.

5 JUDGE OSTEN: Yeah, if it takes -- we've got
6 depositions coming in next week already anyway, so that's fine.
7 So we'll take -- Plaintiffs' Exhibit 4080 is the stipulation.
8 No objection. That document is admitted.

9 And with respect to the affidavit, what number do you
10 want to put on that?

11 MS. EARLS: This will be 4081, Your Honor.

12 JUDGE OSTEN: Okay. Let me back up. The
13 stipulation is going to be 4080?

14 MS. EARLS: That's correct, Your Honor. And if I may
15 hand that up now?

16 JUDGE OSTEN: Plaintiffs' Exhibit 4080 is a
17 stipulation. That's admitted. Plaintiffs' Exhibit 4081 is
18 admitted subject to the condition that the Defendants will be
19 permitted to introduce a counteraffidavit from Dr. Hofeller.

20 MS. EARLS: Now, with regard to the depositions and
21 deposition exhibits, I need to clarify now. As a result of a
22 global agreement that the parties have reached with regard to
23 the exhibits on the exhibit list in this case, the accurate
24 statement of what our agreement is -- and I just want to be
25 clear because I think in the minute entry and at the beginning

1 of the trial there was some -- a little bit of confusion about
2 that, but the correct agreement is that all depositions of fact
3 witnesses are admitted, and the parties agree that if we're
4 willing to rely on the designations and not require the full
5 deposition to be submitted to the Court, we're trying to reduce
6 the amount of paper that you have to wade through, that
7 certainly the League of Women Voters Plaintiffs are content to
8 rely on our deposition designations, but all -- any objections
9 that appeared to those are now waived because the global
10 agreement is that any deposition testimony of fact witnesses is
11 admitted.

12 JUDGE OSTEEEN: That's -- the global agreement is
13 where I understood we'd left it last time we talked, that all
14 the depositions would be admitted and any objections were
15 withdrawn, and to the extent, during your closing arguments,
16 you want to make -- clarify that we're satisfied to rely on our
17 designations, or whatever you want to say to clean that up, I'm
18 fine with that, but at this point, all the depositions are
19 coming in.

20 MS. EARLS: And then the second important point is --

21 JUDGE OSTEEEN: Of fact witnesses, excuse me.

22 MS. EARLS: The deposition exhibits, however, are
23 dealt with on the exhibit list. So it is not true that we're
24 globally agreeing that all deposition exhibits would be
25 admitted.

1 JUDGE OSTEEEN: Okay. And the objection is listed
2 on -- is on the list now, if there is one?

3 MS. EARLS: Well, and that's what we are now prepared
4 to go through. We can identify which Plaintiffs' exhibits we
5 now can move for admission and then the Defendants -- this is
6 also -- we have agreement with regard to our objections to
7 their exhibits. So when we come to that stage in their case,
8 they will be able to move admission of exhibits.

9 JUDGE OSTEEEN: If this is a bad idea, let me know
10 candidly, but my initial reaction to that is if there's going
11 to be some process where Plaintiffs and Defendants are going to
12 stand up and say we move this and there's no objection and we
13 move Y and there is an objection and then the objection is
14 going to be stated, I frankly think that might be a little
15 easier to do all at one time maybe with the help of a written
16 checklist as we go through.

17 MS. EARLS: Well, what I can represent to you is that
18 we have resolved all the objections.

19 JUDGE OSTEEEN: So there are no objections?

20 MS. EARLS: There are no objections that need to be
21 heard?

22 JUDGE OSTEEEN: Okay.

23 MS. EARLS: But we do need to clarify which exhibits
24 -- some exhibits have been withdrawn. Some objections have
25 been withdrawn. So that's what we need to clarify.

1 JUDGE OSTEEEN: Is it possible to do that with a
2 written list?

3 MS. EARLS: I believe so.

4 MR. STRACH: Yeah, we could just file an updated list
5 that contains all the exhibits that are now not objected to.

6 JUDGE OSTEEEN: I'm willing to sit here and find now
7 that all exhibits not objected to are admitted, and they will
8 be -- that will be formalized in the form of a written list
9 submitted by the parties.

10 Do you all have any problem with that?

11 JUDGE WYNN: Sounds good.

12 JUDGE BRITT: Fine with me.

13 MS. EARLS: Thank you, Your Honor. If I may hand up
14 the Plaintiffs' exhibits. I believe that then allows the
15 Plaintiffs -- both the Plaintiffs in these consolidated cases
16 to rest their cases in chief.

17 JUDGE OSTEEEN: All right. Mr. Strach, you may call
18 your next witness.

19 MR. STRACH: Thank you, Your Honor. Your Honor, we
20 call Sean Trende.

21 (Witness sworn by the clerk.)

22 MR. STRACH: And, Your Honor, I've got our expert
23 reports like the Plaintiffs did and some notebooks for you to
24 follow. I'll hand those to you all.

25

1 MR. STRACH: May it please the Court?

2 JUDGE OSTEN: You may proceed.

3 MR. STRACH: Thank you, Your Honor.

4 SEAN TRENDE,

5 DEFENDANT'S WITNESS, SWORN AT 10:17 a.m.

6 DIRECT EXAMINATION

7 BY MR. STRACH:

8 Q Good morning, Mr. Trende. Could you state your name for
9 the record, please.

10 A Yeah, it's Sean, S-E-A-N, Trende, T-R-E-N-D-E.

11 Q And, Mr. Trende, what is your occupation?

12 A I'm the senior elections analyst at RealClearPolitics.

13 Q All right. And what's your educational background
14 briefly?

15 A I got -- I received a bachelor's degree from Yale with a
16 double major in history and political science. I received a
17 master's degree from Duke in political science and a J.D. from
18 Duke as well.

19 Q And are you working presently on any additional education?

20 A Yes, I'm enrolled in a Ph.D program at Ohio State
21 University.

22 Q All right. And what's your concentration in the Ph.D
23 program?

24 A It's a double concentration in methods in American
25 politics.

1 Q All right. And what do you mean by "methods"?

2 A Methods is basically statistics and design for political
3 science.

4 Q All right. And how far along are you? How many hours
5 have you had?

6 A I'm in my second year. I've had about 30 credit hour --
7 or 25 credit hours of statistics and, not counting my master's,
8 another 12 of political science.

9 Q All right. And what kind of courses are involved in what
10 you've done so far?

11 A So for the statistics course work, it's been work in
12 probability theory, applied regression analysis, design of
13 experiments, nonperimetric statistics. In the political
14 science side, I've done work on GIS systems, an independent
15 study on redistricting, public opinion, and so forth.

16 Q All right. Now, what did you do -- you said you got a law
17 degree from Duke, correct?

18 A Yes.

19 Q What did you do after law school?

20 A So I clerked on the Tenth Circuit for a year. Then I
21 worked at Kirkland & Ellis in Washington, DC., I worked at
22 Hunton & Williams in Richmond, and then for a small firm in
23 Newport News before going to RealClearPolitics.

24 Q And when did you start with RealClearPolitics?

25 A I started with them on a freelance basis in 2009 and then

1 full-time in March of 2010.

2 Q All right. And what is RealClearPolitics?

3 A So RealClearPolitics, it has a physical office, but it's
4 an online site that's designed to be a one-stop shop for
5 politics. It covers polls, it aggregates polls, and it also
6 produces original content.

7 Q All right. And what's your title there?

8 A It's senior elections analyst.

9 Q And what do you do as a senior elections analyst?

10 A So I'm in charge of rating House -- the competitiveness of
11 House races. I assist with the assignment of ratings to
12 governor and Senate races, although those tend to be
13 deterministic based on our poll averages, and I also, like I
14 said, do -- produce original written content analyzing
15 elections.

16 Q All right. And in connection with the analysis you do as
17 a senior elections analyst, what kind of data are you working
18 with?

19 A It's all sorts of data from the Current Population Survey
20 to the exit polls, the CCES, a wide variety of data sources.

21 Q All right. And do you cover redistricting in your work?

22 A I did, especially in the 2010 cycle.

23 Q And tell us a little bit about what you did.

24 A So it was my job to follow how these redistricting plans
25 were shaking out because, for one thing, you couldn't rate the

1 races for 2012 without knowing what the new districts were.

2 Secondly, that was crucial to my work with the *Almanac of*
3 *American Politics*, which we'll get to, I guess.

4 Q Tell me about the almanac. What is that?

5 A So the *Almanac of American Politics* is a series dating
6 back to 1971 that covers -- it was actually originally
7 conceived over the anti -- a guide for antiwar efforts to
8 target members of Congress; but for every congressional
9 district in the country, it gives a summary of what the
10 district's history is, what the major occupations and
11 industries are in the district, and then it gives a summary of
12 the member of Congress that's representing that district, what
13 his or her voting history is and so forth.

14 Q What's been your contribution to it?

15 A I coauthored the 2014 edition, which covered the 2012
16 elections. I was in charge of doing district write-ups for
17 about half the states, and so that involved, you know, looking
18 at how the district lines had changed, rewriting a large
19 portion of them because they were new districts.

20 Q All right. And have you covered redistricting in any
21 other ways outside of the almanac or what you do for
22 RealClearPolitics?

23 A Well, redistricting was crucial to my book, *The Lost*
24 *Majority*, which covered the -- basically, it's an explanation
25 of what happened in the 2010 elections, and so it's a take

1 on -- there was a lot -- there were a lot of people after the
2 2008 elections that had signed on to what's called "The
3 Emerging Democratic Majority Theory," that because of
4 demographic changes, Republicans were being locked out of
5 politics and that the 2008 elections were the summary of that.
6 It's based on a 2002 book called *The Emerging Democratic*
7 *Majority*.

8 So looking back over elections, I said this just
9 doesn't happen. Elections swing back and forth, and what we
10 saw was more random fluctuation due to the economy and so
11 forth. This realignment theory that the book is based on --
12 the old book is based on doesn't really hold water, and also it
13 identified that, you know, one of the problems that the
14 Democrats had going forward was the clustering of their votes
15 and that this would impact their ability to redistrict lines in
16 their favor.

17 Q All right. And then in the almanac, going back to that
18 very briefly, does any part of the almanac cover North
19 Carolina?

20 A Yeah -- yes, the 13 districts are all laid out, and I was
21 in charge of writing the districts for North Carolina.

22 Q So it was essentially a historical look at the districts
23 in North Carolina?

24 A It was a historical look at the districts, and then also
25 what the new districts were -- what the new districts looked

1 like, what their history was. Some of them just had to be
2 completely rewritten, and some of them deserved to be
3 rewritten. Like the history of Wilmington that didn't discuss
4 the Wilmington race riots, that needed to be included.

5 Q Have you authored any other books or chapters in books?

6 A Yes, I've written -- I've contributed the last -- every
7 year after the election, Dr. Larry Sabato at the University of
8 Virginia produces a compilation discussing the previous
9 elections, and I've written -- contributed chapters to the last
10 three editions. I also have a chapter that's forthcoming on a
11 book with Rafael Jacob of Temple University covering swing
12 states, and I wrote the Ohio chapter for that.

13 Q Have you ever written in any peer-reviewed literature?

14 A I haven't.

15 Q Any reason why?

16 A It's not really relevant to what I do.

17 Q Has your work ever been cited in peer-reviewed literature?

18 A It has. For one example, George Hawley's recent book on
19 white voters in the 21st century has a chapter dedicated to one
20 of my economic analyses.

21 Q Have you -- you're familiar with the various political
22 science journals that are out there?

23 A Yes.

24 Q Have you ever been asked to be a peer reviewer for any of
25 those?

1 A I have, twice.

2 Q Which ones?

3 A One of them is -- I believe it's *Political Parties*, and I
4 can't remember what the second one was. I believe it was *PS*.

5 Q Okay. Now, I believe -- was there at any point in time
6 when you were asked to advise governments overseas in any
7 election-related way?

8 A Yes. So in 2012, I was flown out by the EU to discuss the
9 upcoming 2012 elections before the EEAS, which is the
10 diplomatic core for their state department, and then in 2016, I
11 was flown out to Sweden to discuss the implications -- I guess
12 2017, earlier this year, to discuss the implications of the
13 Trump presidency with some government officials there and then
14 to do presentations to think tanks and universities around
15 Stockholm about 2016 and what it meant.

16 Q Do you sit on any commissions that are relevant to your
17 work?

18 A So I sit on the States of Change Commission, which is a
19 joint enterprise of three think tanks to discuss demographic
20 change in the country.

21 Q Okay.

22 A And I was asked to coauthor the 2018 primary report.

23 Q Have you testified in redistricting cases before?

24 A Yes, I have.

25 Q Do you recall which ones?

1 A So *Whitford v. Nickel* or *Gill*, it's changed, which was the
2 Wisconsin efficiency gap state legislature piece, and then I
3 had my report submitted in *Dickson v. Rucho* and then *Covington*,
4 but I didn't testify live.

5 Q All right. And have you ever had an opinion of yours that
6 was not accepted by a court?

7 A Yes, so in the *Husted* case, which is an early voting case
8 in Ohio, I had drawn some maps using the -- it's a terrible
9 name for a website, but it really is a good app, Dave's
10 Redistricting App, which allows you to create political maps
11 and demographic maps, and the Court felt that I should have
12 done additional checking of the underlying data to make sure
13 that it was accurate, and so those maps were not included,
14 although the underlying opinion in my testimony was accepted.

15 Q Okay.

16 MR. STRACH: Your Honor, at this time we would like
17 to offer Mr. Trende as an expert in US elections, including
18 congressional elections, analysis of electoral history, and
19 redistricting.

20 MS. GREENWOOD: I would like to renew my objection.
21 I would like to object to that and renew my motion in limine to
22 exclude --

23 JUDGE OSTEN: Hang on just a second. I'll take your
24 objection fully. You can have a seat for just a second. An
25 expert -- give me the field again.

1 MR. STRACH: Yes, Your Honor. US elections,
2 including congressional elections, analysis of electoral
3 history, and redistricting.

4 THE COURT: Including congressional elections and
5 analysis of?

6 MR. STRACH: Electoral history and redistricting.

7 JUDGE OSTEN: And one question in terms of US
8 elections is pretty broad. I thought I understood that most of
9 his work had been directed toward House races and some in terms
10 of presidential and otherwise. Just very briefly, tell me how
11 we get such a broad topic. Maybe I misunderstood the
12 testimony.

13 Let me explain it this way. US elections is very
14 broad and would include a lot more than just the House
15 elections, and I wasn't sure, in terms of the testimony I just
16 heard, that he was primarily directed toward House elections
17 and almost secondarily, maybe the way I understood it, toward
18 presidential and other elections, but with some experience in
19 that field.

20 MR. STRACH: Right. You know, I think it is probably
21 primarily congressional elections, but he's got substantial
22 amount of experience in legislative elections and presidential
23 elections. So that's why we said US elections.

24 JUDGE OSTEN: Okay. Now, any voir dire of the
25 witness?

1 MS. GREENWOOD: Yes, please. May I conduct a voir
2 dire?

3 THE COURT: You may.

4 MS. GREENWOOD: Thank you.

5 VOIR DIRE EXAMINATION

6 BY MS. GREENWOOD:

7 Q Good morning, Mr. Trende.

8 A Good morning.

9 Q Mr. Trende, are you a professor?

10 A No.

11 Q And you would not call yourself a political scientist,
12 would you?

13 A No.

14 Q And you testified that you haven't written any articles in
15 any peer-reviewed journals, is that right?

16 A That's correct.

17 Q Do you have a Ph.D?

18 A I don't.

19 Q And you said that you've completed one year of your Ph.D
20 program at the Ohio State University, is that right?

21 A Yeah, I'm in my second year.

22 Q Now, Professor Jackman coded all of his data work in a
23 program called R. It's the letter, R. Have you taken any
24 classes in R coding?

25 A I'm taking one.

1 Q Right. So you haven't actually completed any classes in R
2 coding?

3 A Right, I'm taking one.

4 Q Right. Professor Chen coded all his work in a program
5 called JAVA. Have you taken any classes in JAVA coding?

6 A No.

7 Q And do you have experience writing code in any other
8 language?

9 A Well, now, yes. As of my deposition, no.

10 Q Right. What do you have experience in now?

11 A Now I've done a lot of work in Stata.

12 Q Right. So at the time you submitted your expert report,
13 though, you hadn't had any coding in any language?

14 A That's correct.

15 Q Dr. Jackman uses Bayesian inference in his analysis. Have
16 you taken a class on Bayesian inference?

17 A No.

18 Q I understand that when you're not studying, you're still
19 working at RealClearPolitics, and that one part of your job is
20 to rate the competitiveness of congressional elections, is that
21 right?

22 A Correct.

23 Q I also understand that an aspect of those ratings is to
24 rely on poll averages?

25 A For Senate and governor races and somewhat for House

1 races. It's just that the polling for House races is a lot
2 sparser.

3 Q Right. Do you generate any of the poll averages?

4 A No.

5 Q And you don't use any regression models in your ratings,
6 do you?

7 A No.

8 Q You said that you analyzed redistricting after 2010 for
9 RealClearPolitics, but you have no work experience analyzing
10 the redistricting plans in prior decades, do you?

11 A Well, so one of the things that I did was Kenneth Martis
12 has a book of congressional districts going back to 1789 that,
13 unfortunately, doesn't give county lines or cities or how the
14 elections turned out. So I actually digitized the book and
15 hand drew, using Adobe Illustrator, all the districts over
16 county lines and then coded them according to electoral
17 outcome, again going back to 1789, for my work to learn how
18 redistricting actually works. So you can see, like, why did
19 William McKinley lose in 1890. Oh, it's because the Democrats
20 drew his district out of Appalachia and into Holmes County,
21 which was then the most Republican -- or Democratic portion of
22 Ohio. That's what happened.

23 So, yes, that's a lot of redistricting work for my
24 current work.

25 Q Right. You did a lot of those illustrations to try to

1 learn more about redistricting, but you weren't offering
2 analysis of those plans for your work, were you?

3 A I have included those. That's in my forthcoming book --
4 or my forthcoming chapter on Ohio.

5 Q So you may in the future be able to say you've done work
6 that's been published on that, is that right?

7 A I have included those maps in work for RealClearPolitics,
8 too. There was a piece I did on Alabama's -- when Parker
9 Griffith switched parties in 2010, talking about the history of
10 the 5th District and how it had been drawn over time, and that
11 included those maps that I drew. So that was back in 2009 --
12 or '10.

13 Q Have you ever drawn a redistricting plan for a legislature
14 or another body like a commission that's required to draw plans
15 that will comply with applicable laws?

16 A No, I've never drawn a map for a legislature.

17 Q And you mentioned -- sorry. Have you ever drawn a
18 redistricting plan in GIS software like Maptitude?

19 A No.

20 Q Have you ever successfully simulated district plans using
21 an approach of that like of Professor Chen?

22 A No, that's part of why I stayed away from Dr. Chen's
23 report.

24 Q Good idea. Professor Jackman testified that in political
25 science literature a common measure of partisan asymmetry is

1 what is called "partisan bias." As the term is used by
2 political scientists, how would you define partisan bias?

3 A So the partisan bias of a plan is the difference -- it's
4 for an asymmetry measure. It's the difference between -- once
5 you move the plan back to a position of parity, the difference
6 between where the votes-to-seats curve is in a neutral map,
7 which is -- usually, we think it passes through the origin
8 versus where that particular plan ends up.

9 Q Right. Now, that's not what you said at your deposition,
10 is it?

11 A I don't remember. I used the term -- in my report, I
12 distinguished between partisan bias and bias, which is what I
13 label "The Pure Proportional Representation Discrepancy," and I
14 thought the first question you asked was about the bias, not
15 the partisan bias, but I could be wrong.

16 Q Right. Well, would it help your recollection if you
17 reviewed your deposition?

18 A I imagine.

19 Q Okay.

20 MS. GREENWOOD: May I approach and hand up the
21 deposition?

22 JUDGE OSTEN: Well, let's continue along with
23 qualifications first.

24 MS. GREENWOOD: Okay. I believe that his ability to
25 understand key concepts in this case is relevant to his

1 qualifications, but I'll move on to another. I just have one
2 more question about that.

3 JUDGE OSTEEEN: All right.

4 BY MS. GREENWOOD:

5 Q Another important concept in this case is the efficiency
6 gap. And in your report, you say that one way to calculate the
7 efficiency gap is the so-called "simplified method."

8 A Yes.

9 Q If we use that simplified method for calculating the
10 efficiency gap, is it possible to read the efficiency gap off a
11 seats-votes curve?

12 A Can you repeat that?

13 Q Sure. If we use the simplified method for calculating the
14 efficiency gap, is it possible to read the efficiency gap off a
15 seats-votes curve?

16 A The simplified method is a line not a curve, so --

17 Q Right. Is it possible to -- can you read the efficiency
18 gap off a seats-votes curve?

19 A Certainly not at large -- large values because they
20 diverge at large values. At smaller values, they're very
21 similar.

22 Q Right. So your answer is that it's not possible to do
23 that?

24 JUDGE OSTEEEN: Let me explain one thing, as I
25 understand it. He's been tendered as an expert in a slightly

1 different field from what I understood Drs. Chen and Jackman
2 were tendered for. So I'm not sure that comparing his
3 knowledge to -- knowledge base to what Dr. Chen and Dr. Jackman
4 may have in terms of their experience is necessarily helpful in
5 deciding whether or not the witness is qualified to testify as
6 an expert.

7 MS. GREENWOOD: Right. I guess Mr. Trende is trying
8 to say that he's able to offer criticisms of Professor
9 Jackman's and Professor Chen's work, or mostly Professor
10 Jackman's, and I'm trying to establish that he would need to
11 understand that work.

12 JUDGE OSTEN: Let me explain. He's being tendered
13 now to testify as an expert in a specific field. Whether or
14 not that testimony will later extend to criticisms of Drs. Chen
15 and Jackman, we'll see, but the question is is he qualified to
16 testify as an expert in his field at this point.

17 MS. GREENWOOD: Right, and I guess I would say that
18 the efficiency gap and partisan bias are key metrics in
19 redistricting, and if he's going to be --

20 JUDGE OSTEN: According to your theory, right?

21 MS. GREENWOOD: Well, I think according to political
22 science.

23 JUDGE OSTEN: Has he been qualified to testify as an
24 expert in those two fields?

25 MS. GREENWOOD: In redistricting, I believe it's a

1 component for being -- if you're an expert in redistricting,
2 you should be able to discuss partisan bias and the efficiency
3 gap.

4 JUDGE OSTEN: All right. So then ask him that
5 question. If you want to get to these specifics, let's deal
6 with that during the substantive testimony, if we get there.
7 Do you understand?

8 MS. GREENWOOD: Sure.

9 BY MS. GREENWOOD:

10 Q So given that you're a little unclear on the definitions
11 of partisan bias and the efficiency gap, is it your intent to
12 offer expertise on redistricting but not on the efficiency gap
13 and partisan bias?

14 JUDGE OSTEN: Well, whatever -- is it in his report?

15 MS. GREENWOOD: Yes.

16 JUDGE OSTEN: Okay. Then ask him about whether or
17 not he opined on that in his report, not what -- his intent
18 will be controlled by what the lawyer asks him. Does that make
19 sense?

20 MS. GREENWOOD: Thank you, Your Honor, yes.

21 JUDGE WYNN: Let me clarify, at least in terms where
22 I think -- and I agree with Judge Osten on this point. Where
23 you are now and the fact that he will be qualified as an expert
24 does not mean that every single thing within that particular
25 field he can render an opinion on. There would be matters that

1 may be beyond the scope of his expert. Even though we qualify
2 him in redistricting, that in and of itself really needs an
3 underlying level of qualification to specific things there. We
4 can't possibly go through those.

5 So in redistrict -- on cross-examination, that's
6 where you would bring that out, and that is to indicate if he
7 does not possess that level of expertise within the
8 redistricting field, and if there are others there, it will
9 become apparent then; but at this point in time, if he
10 qualifies as an expert, then that's a general expert in his
11 field. So qualifying a medical doctor as a doctor doesn't mean
12 he can get up and give an opinion on brain surgery and
13 everything else within the field, but he can be a general
14 expert within that field; but it is cross-examination where you
15 will bring that out. What you're doing now is sort of a form
16 of cross-examination before the direct examination's been
17 offered on him.

18 MS. GREENWOOD: Okay. I apologize, Your Honors. I
19 think that they are all my questions on qualifications, and so
20 I would just renew my submission that I think that Mr. Trende
21 does not meet the requirements of an expert. He doesn't have
22 sufficient education, he doesn't have sufficient experience,
23 and he doesn't have sufficient skills to be an expert that will
24 offer reliable testimony to this Court.

25 JUDGE OSTEN: All right. Thank you.

1 (Off-the-record Discussion.)

2 JUDGE OSTEEEN: In terms of this -- we'll take the
3 ultimate question under advisement, but we're going to allow
4 him to proceed to testify as an expert in this case.

5 What does that mean? We're going to take the
6 testimony, and then if we change our mind later, we change our
7 mind; but right now, we're going to take the testimony, and we
8 are not -- in terms of US elections, I think that's too broad
9 based on the experience and qualifications that I heard
10 Mr. Trende describe. So unless there's another way to do it,
11 I'm going to limit it to congressional elections. I understand
12 he's got experience looking at US elections, but unless there's
13 a reason I should reconsider that, at this point it will be
14 limited to congressional elections and analysis of electoral
15 history and redistricting.

16 JUDGE WYNN: I just wanted to add to that that the
17 level of expertise is considered to be a general expert within
18 that field. If there is specific expertise that he possesses
19 in the process of your examination that comes about or some
20 lack thereof, it would become -- it's the sort of thing we can
21 bring out in the testimony.

22 MR. STRACH: All right. Thank you, Your Honor.

23 BY MR. STRACH:

24 Q So, Mr. Trende --

25 MR. STRACH: And just for the Courts' information,

1 Mr. Trende's report is marked, it's in your notebook, as
2 Defendants' Exhibit 5101. I think it might be the last tab in
3 the notebook that you have before you.

4 JUDGE BRITT: 5101?

5 MR. STRACH: Yes, Your Honor, 5101.

6 JUDGE BRITT: Got it.

7 BY MR. STRACH:

8 Q Mr. Trende, just as a global matter and to put your
9 testimony in context of Dr. Jackman's testimony, could you tell
10 the Court what is the difference between what you're trying to
11 do in your report versus what Dr. Jackman is doing in his
12 report?

13 A So kind of apropos the colloquy, Dr. Jackman is interested
14 in the statistical properties of the efficiency gap, the
15 theoretical properties of the efficiency gap, whether it
16 ties -- how it ties in to partisan asymmetry measures and so
17 forth. That's really not what my report is about. My report
18 is more practical. Okay, we have this efficiency gap, and it's
19 been tied to asymmetry metrics. We've done sensitivity tests
20 of it over time and regression analyses. What happens when we
21 actually try to put the efficiency gap into practice? Does it
22 work? Does it produce sensible results? Is it actually easy
23 to calculate? Those are the type of questions that I've --
24 I've tried to explore, things that are more in line with my
25 practical experience.

1 Q All right. Why don't you turn to page 7 of your report
2 where you begin to discuss this issue. And if we could put up
3 5101, we'll start with page 7.

4 Mr. Trende, here in your report you say that "there's
5 no single efficiency gap, making it difficult to choose a
6 standard." What do you mean by that?

7 A So if you look at the various articles and then testimony
8 that have been offered over time, you see different versions of
9 the efficiency gap and different cutoffs that have been
10 suggested for the efficiency gap. So this just identifies some
11 different ways in which the efficiency gap has been presented.

12 One thing that has changed over time is when
13 Dr. McGhee and Mr. Stephanopoulos published their law review
14 article, the suggested cutoff is eight seats. In other words,
15 states with fewer than eight congressional districts would not
16 be subjected to efficiency gap analysis. My understanding --
17 and that was certainly the cutoff in Wisconsin where I was
18 cross-examined for analyzing states with seven seats, Alabama
19 and Colorado in particular.

20 Now, it's my understanding that the cutoff is seven
21 seats, and Alabama and Colorado are actually included in the
22 analysis.

23 Q So as a practical matter, if the cutoff for this is
24 reduced from eight congressional seats to seven congressional
25 seats, what's the practical impact of that?

1 A So three additional states are brought into consideration.
2 There's three states that have seven congressional districts:
3 South Carolina, Alabama, and Colorado.

4 Q All right.

5 A And the upshot of that is that the Alabama and South
6 Carolina maps were drawn by Republicans. The Colorado map was
7 adopted by a court. So you subject two additional
8 Republican-drawn maps to scrutiny.

9 JUDGE WYNN: Counsel, I just want to make sure I
10 understand what his testimony is and what his level of
11 expertise is, and I'm just puzzled and I just want to -- if you
12 wouldn't mind, lay a little more foundation in terms of his
13 expertise on this, because we did hear he didn't know about
14 Jackman's work. He's not done that level of study, and it
15 would be helpful, at least to me, to lay a little bit more in
16 terms of what his expertise is in this area, particularly with
17 efficiency gap and the manner in which it's being used.

18 MR. STRACH: Well, Your Honor, I think what he said
19 and what the testimony is is he's not opining on the
20 theoretical theory, political science theory, what have you,
21 about the efficiency gap. He's simply accepting the numbers
22 for what they are, and then telling the Court what the
23 practical impact of that is if a Court or anybody else was
24 having to actually apply it.

25 So based on his unique history of congressional

1 elections and electoral history and analysis, he's able to show
2 how these numbers operate in the real world.

3 JUDGE OSTEEEN: And I agree with Judge Wynn. It's one
4 thing to say after this -- when this evidence was presented, I
5 learned of the efficiency gap. It was based on seven or more
6 districts, so I went out and looked at elections in that
7 category, and then I heard eight, and I went out and looked at
8 elections in that category; and then moving on to what effect
9 the difference may have had in terms of what analysis he did is
10 one thing.

11 The testimony sounded a little to me like a criticism
12 of the efficiency gap because here it was seven and now -- or
13 here it was eight and now it's seven, and the target is
14 changing, but whether that's a good thing or bad thing within
15 efficiency gap analysis is not something I understood him to be
16 qualified to opine on, if that makes any sense.

17 JUDGE WYNN: I mean, it gets to the point of being
18 maybe it's just lay testimony. What he's saying is probably
19 anybody could say, but he doesn't have the expertise to
20 criticize an expert report for which he does not have the
21 expertise in. Or does he? I'm trying to understand that, but
22 I think you need to lay at least some basis of how he has that
23 level of expertise to get an opinion.

24 MR. STRACH: I'm not -- I'm having -- so he's trying
25 to give -- the standard at one time was eight seats. It's now

1 down to seven seats; and as a result, that sweeps in additional
2 states. That's the practical impact, and --

3 THE COURT: So what?

4 MR. STRACH: -- that's based on his knowledge --

5 JUDGE WYNN: We already know that.

6 JUDGE OSTEN: Yeah, Dr. Jackman acknowledged that,
7 and that's fodder for argument in terms of the standard. We
8 get that. We don't need to be an expert to figure that out.
9 I'm not saying whether it's a good or bad argument, just
10 something that you can argue in terms of his expertise. Does
11 it make some relevant difference to the case if he uses seven
12 versus eight, or he takes their reports and uses that
13 information? Do you follow me?

14 MR. STRACH: I do, Your Honor. Let me move to a
15 different topic and see if this helps the Court.

16 JUDGE WYNN: Just lay the foundation for it, if he --
17 because I think being a general expertise -- if he's going to
18 go into a specific-level area, you need to give some foundation
19 for how his expertise goes into that area. This is still under
20 advisement, and I want to give you every benefit of the doubt.
21 If you think he has it, then tell us how you he has it.

22 MR. STRACH: All right. Well, I think he does have
23 what --

24 JUDGE WYNN: Well, then give it to us.

25 MR. STRACH: So far I feel like he does, but, you

1 know, perhaps the Court may disagree. I apologize for that.

2 Let me see if I can get to a section where this may
3 make more sense for the Court.

4 BY MR. STRACH:

5 Q Mr. Trende, let me focus more on really what the bulk of
6 your report was focused on, which was -- which actually starts
7 later in the report. Let's see if I can find the page so I can
8 get the Court there.

9 All right. It generally starts on page 29 and
10 following. At page 29, you have a heading that says "The
11 Efficiency Gap is Not Clearly the Hallmark of a Gerrymander as
12 Commonly Understood." What do you mean by that?

13 A Yeah, so in Dr. Jackman's report, he refers to partisan
14 asymmetry -- that partisan asymmetry metrics is the hallmark of
15 a gerrymander, and from a theoretical perspective, maybe. The
16 question is when you take the efficiency gap and you apply it
17 to actual maps, does it produce sensible results? This is the
18 type of thing you want to do when you do statistical analysis.
19 For example -- well, yes, it's the type of thing you want to
20 do.

21 Q And in the work you've done with congressional and other
22 elections, have you done work which allowed you to assess
23 whether districts were, you know, gerrymandered and, as you
24 say, in the sensible meaning of the term?

25 A Yeah, it's difficult to come up with -- I mean, as this

1 case, I think, illustrates, it's difficult to come up with a
2 definition of a gerrymander, but there are certainly bizarre
3 results you can get. For example, if you have a map with
4 contorted lines that the Democrats drew and all the
5 contemporaneous evidence indicated they were trying to draw it
6 to favor Democrats, and it ends up producing an actionable
7 Republican efficiency gap standard, which I've calculated the
8 efficiency gaps, that's not terribly difficult to do, the --
9 then something's up.

10 If the North Carolina Democrats -- or if the North
11 Carolina Republicans drew a map to aid Republicans and it ended
12 up showing a .19 efficiency gap, you know, something that
13 showed very heavy Democratic gerrymander, that's a problem. If
14 it happens in one map, it's not that big a deal. If it happens
15 in, say, a fifth of the maps that are produced over time, then
16 I think you've got a problem, and the maps that are going to --
17 the cases that are going to be coming before the Court in
18 future circumstances is going to have to deal with these
19 bizarre outcomes.

20 Q Well, let's just try to walk through a couple of examples
21 just to try to add some context to this.

22 If you look at page 38 of the report, you've got
23 there a map of the Alabama 1972 redistricting. Can you tell
24 the Court what's the -- what point are you trying to make with
25 this 1972 map?

1 A So one of the problems that the efficiency gap has when
2 it's put into practice is that -- I understand what Eric McGhee
3 is getting at in his initial LSQ article on this where he kind
4 of conceptualizes the efficiency gap. What redistricters are
5 trying to do when they gerrymander is either put Democrats into
6 a district right up to the point where they don't win it or to
7 put Democrats into districts where they overwhelmingly win it,
8 and that wastes votes. I understand that conceptually.

9 The problem is that once you actually put a map into
10 practice, a lot of things affect congressional outcomes. You
11 can have incumbents that you thought were going to lose get
12 caught up in scandals. You can have issues where incumbents
13 die and a district that you thought would be a win for
14 Democrats suddenly becomes something Republicans can win; and
15 when you're in jurisdictions with small numbers of
16 congressional districts, and this is out of the Stephanopoulos
17 and McGhee article, the efficiency gap becomes lumpy. These
18 small freak circumstances can produce wild changes in the
19 efficiency gap.

20 And so what this Alabama map in 1972 illustrates --
21 it's a nice illustration of how these sorts of factors come
22 into effect. This is a map that has a Republican lean. It's
23 not a massive Republican lean, but it was drawn -- I believe
24 there were two Republicans in the entire Alabama state
25 legislature at the time it was drawn and a Democratic governor.

1 What happened -- the Democrats drew -- Alabama lost a district
2 in the 1972 redistricting, and what Democrats did was they drew
3 a Republican incumbent, who had won in 1964 and managed to hang
4 on in the subsequent years, into the same district as a
5 long-time Democratic incumbent in the second district. So that
6 was something that the Democrats thought they were going to
7 win, and it would waste Republican votes, but, unfortunately,
8 the Democratic incumbent died in between the time that the map
9 was drawn and the time of the election. So instead of running
10 against a long-time -- at a relatively young age. He was 64, I
11 believe. So instead of running against a long-time incumbent,
12 this Republican incumbent ends up running against a 26-year-old
13 Democratic state legislator. He ends up winning, and so this
14 map that was drawn to waste Republican votes ends up wasting
15 Democratic votes because of this kind of fluke circumstance
16 that has an outsized impact in a small number of districts.

17 Q Let's look at page 31, which is another Alabama map. This
18 one is instead 1992. What was the practical situation here?

19 A So this is another example of a map that produces a
20 Republican lean in its first year of implementation, and this
21 is a map that was drawn by a legislature that's overwhelmingly
22 Democratic and had a Democratic governor. It's an example
23 of -- 1992 was an okay Democratic year, and it ended up -- but
24 you have -- basically, what this comes down to is the
25 7th District is the minority-majority district, and so

1 Democratic votes are naturally packed within it. It's
2 difficult to say to what extent to translate that directly into
3 efficiency gaps, but that ends up in kind of naturally wasting
4 Democratic votes. So you end up with this plan drawn by an
5 overwhelmingly Democratic legislature, signed by a Democratic
6 governor that nevertheless has a Republican lean.

7 Q All right. Let's look at page 45 of the report. This is
8 a map of the Georgia redistricting in 2002. What happened
9 here?

10 A So this is a map that is kind of on the gerrymander's
11 greatest hits. You can see the bizarre, contorted districts.
12 The Democrats still had unified control of the Georgia
13 government in 2002, and so they drew this map in an attempt to
14 make an 8-5 Democratic map, and it ended up falling apart in
15 the first year for a couple reasons. First, 2002 was,
16 generally speaking, a good Republican year. You had a
17 Republican president with a 72 percent approval rating on
18 Election Day. So some of these maps that were designed to
19 narrowly elect Democratic incumbents ended up electing
20 Republicans, and you had fluky circumstances, like the
21 Democratic nominee in the 12th District was the Speaker of the
22 House's son, and it came out that he had a criminal record, had
23 been convicted three times; and so in a Democratic year, he
24 might still have won in that district, but in a Republican
25 year, the Republican barely wins, and a bunch of Democratic

1 votes get wasted.

2 And, again, something with a smallish number of
3 districts, losing one or two districts that you thought were
4 going to go your way has a substantial impact on the efficiency
5 gap.

6 Q Are there any examples in North Carolina that you're aware
7 of through your prior work?

8 A Yeah, so if you go to I guess page 57 of my report, you
9 see the famous North Carolina map from 1992, and, again, I
10 think you would be hard-pressed to have someone say this isn't
11 a gerrymander. I mean, they're using touch-point contiguity
12 throughout it, and you can see the bizarre lines, and it's
13 bizarre in ways that go beyond compliance with the Voting
14 Rights Act. I mean, yes, you have the 12th District and the
15 1st District, which are VRA districts, but that doesn't explain
16 things like the relationship, it's very hard to see, between
17 the 11th, 10th, 5th, and 9th Districts in Western North
18 Carolina.

19 So this is a map again drawn by a Democratic
20 legislature, signed by a Democratic governor, the type of thing
21 you would expect if the efficiency gap itself were a hallmark
22 of a gerrymander to produce a substantial Democratic map, but
23 lean and be actionable, but it wasn't. In fact, in 1994, the
24 map actually produces a Republican lean because in 1994, you
25 have David Funderburk surprisingly winning in the 2d District,

1 Fred Heineman shocking everyone by winning in the 4th District.
2 So these maps that would generally waste a lot of Republican
3 votes end up wasting huge numbers of Democratic votes because
4 that's what happens under fluke circumstances with the
5 efficiency gap, and since you only have twelve -- you only have
6 twelve districts here. Two districts flipping moves the
7 efficiency gap by about .14, which is enough to go from an even
8 map to an actionable map just by a fluke.

9 Q What about the 2002 North Carolina map, page 58?

10 A Yeah, again, so the 2002 map is a map that's drawn by
11 Democrats that was intended to kind of -- first, it was
12 intended to give the 13th District, the new district, to Brad
13 Miller, who I believe was the House or Senate Redistricting
14 Chairman at the time, but also to weaken Robin Hayes in the
15 8th District, the old Bill Hefner district, that was at the
16 time marginally -- could be drawn marginally Republican. They
17 shored up the Democratic vote share there. They tried to
18 protect Democratic incumbents in the 7th District and then also
19 make the 11th a little more competitive than it had been.

20 And in the first year, again, you have a good
21 Republican year. So these Republicans managed to hold on, and
22 you end up -- you don't end up with an actionable map in the
23 first year. Now, what you do end up with is in 2010, the last
24 year it's in effect, you actually do get an actionable map, and
25 the reason -- and, in fact, if Etheridge hadn't had his --

1 Congressman Etheridge hadn't had the unfortunate incident and
2 had been reelected, you would have had an efficiency gap of
3 somewhere around .19, what the Republicans have under the
4 current map, again an example of how a fluke circumstance can
5 have a big impact on the efficiency gap.

6 What happens in 2010 is you finally have a Republican
7 wave election hit, and this is when the map does its work
8 because Republicans can get close in districts like the 7th and
9 the 8th, and the 11th, of course, flips in 2006 and Shuler
10 holds on, but they -- and so they end up wasting a lot of votes
11 in those districts. So that's when you see it, see the
12 efficiency gap -- or that's when you see the gerrymander come
13 out, but in these kind of normal years, or even these
14 Democratic years like 2006 and 2008, you don't see anything
15 actionable.

16 So, again, if this were the type of thing that just
17 happened in one or two maps, it's a problem; but in the report,
18 I identify a fifth of the maps in the data set as just having
19 obvious problems in terms of the efficiency gap, and these are
20 the type of cases that are going to be before courts.

21 MR. STRACH: Thank you. Thank you, Your Honors.
22 That's all I have for him.

23 JUDGE OSTEN: Cross-examination?
24
25

1 CROSS-EXAMINATION

2 BY MS. GREENWOOD:

3 Q Thank you. Hello again, Mr. Trende.

4 A Hello again.

5 Q Now, in your testimony, am I right that you considered
6 what you called the traditional understandings of a
7 gerrymander?

8 A I think I have some obvious examples of gerrymanders. How
9 these things work at the margins, it's difficult to say.

10 Q Right. In your opinion, what is sort of the traditional
11 understanding of a gerrymander, you used the term "you'd be
12 hard-pressed to find that this isn't a gerrymander." What did
13 you mean there?

14 A Well, I think if you have a map that's drawn by a party,
15 that's -- all the contemporaneous evidence indicates that it
16 was meant to benefit that party, especially if you have
17 contorted lines, which I think most people consider to be
18 evidence of a gerrymander, maybe not necessary, but sufficient,
19 that that's enough.

20 Q Right. So in your opinion, we don't need to consider
21 election results to determine whether a plan is a gerrymander?

22 A So that's an interesting philosophical question whether
23 dummy-manders should be included in the definition of a
24 gerrymander, or something that in the first year -- I mean, I
25 am talking about actual results here, how these plans turned

1 out. That's throughout my testimony, so I don't agree with
2 your characterization there, but, yeah, I think -- it's an
3 interesting question if a plan doesn't turn out in its first
4 year of implementation, whether it should still be a
5 gerrymander or not.

6 Q So what is your opinion on that?

7 A I don't know the answer to that. It's a philosophical
8 question that doesn't have a clear answer. It's something I
9 could argue it either way.

10 Q Do you remember at your deposition I asked you whether we
11 needed to consider election results that follow after a plan
12 has been enacted?

13 A No.

14 Q Would it refresh your recollection if I showed that to
15 you?

16 A I imagine it would, yes.

17 Q Okay. Thank you. So, Mr. Trende, if you can just turn to
18 page 159 and read to yourself lines 14 to 18.

19 A Okay.

20 Q And so I guess I'll ask you again. Do we need to consider
21 election results that follow after a plan has been enacted to
22 determine whether a plan has been a gerrymander?

23 A I say: "No. Sometimes -- sometimes gerrymanders don't
24 work. They're dummy-manders, like the Georgia map in 2002, but
25 that's part of the problem, or sometimes they don't work in the

1 first year that they're put into effect." And the answer goes
2 on.

3 Q Right. But you just say no?

4 A And then I explained it.

5 Q Right. So just to be clear, you wouldn't advocate for any
6 method of determining gerrymandering that's based on election
7 results, would you?

8 A I didn't say that. You asked me if you need to do it, and
9 I said no. That doesn't mean there can't be metrics developed
10 that do do it.

11 Q Right. Do you remember in your deposition that I asked
12 you whether you would advocate for any methods based on
13 election results?

14 A No.

15 Q So if you turn to page 172, you just read lines 8 to 12.
16 Does that refresh your recollection?

17 A Yes.

18 Q Right. So I'll ask again. Do you -- are -- so you
19 wouldn't advocate for any method based on election results?

20 A I wouldn't advocate it. That doesn't mean that you can't
21 do it, or there's no way to do it. Those are different
22 questions.

23 Q Right. Well, I'm just asking if you would advocate for
24 that?

25 A I don't advocate -- the point, I think, in that section is

1 I'm not advocating anything. So I'm not sure there's a clear
2 test that can be developed to do this. I don't advocate any
3 test for gerrymandering.

4 Q Okay. I just want to go over this section of your report
5 that was discussed in direct. It starts on page 29.

6 A Right.

7 Q Now, I know you have a law degree, so I'm pretty sure that
8 you're aware that the Plaintiffs have a three-part standard for
9 partisan gerrymandering, is that right?

10 A It's changed over time. I went back and read the
11 Wisconsin motion to dismiss, and it was a two-part standard
12 then with one of them broken into two pieces so -- and I think
13 it was a four-part test at some point, maybe in the
14 Stephanopoulos and McGhee article. I don't know what -- I
15 haven't read any of the briefings here.

16 Q Right. So in the deposition, I actually went over a
17 section of Professor Jackman's rebuttal report where he says
18 that the Plaintiffs' test is a three-part test.

19 A That's what Dr. Jackman says. I haven't read any of the
20 pleadings to see if he understands it.

21 Q Okay. And you've read the two Professor Jackman reports?

22 A I have read the Jackman reports, yes.

23 Q And nothing in Professor Jackman's quantitative analysis
24 addresses the question of whether plans were drawn with
25 partisan intent, is that right?

1 JUDGE OSTEN: You're asking him to opine on
2 Dr. Jackman's report?

3 MS. GREENWOOD: Yes.

4 BY MS. GREENWOOD:

5 Q Well, I guess can you confirm that nothing in his report
6 addresses the question of whether a plan was drawn with
7 partisan intent?

8 A I will say this: I don't remember anything in
9 Dr. Jackman's report relating the efficiency gap to partisan
10 intent without rereading -- actually, I think he has three
11 reports because one of them is the recalculated version of the
12 second report, but I don't remember anything about intent in
13 them.

14 Q Okay. Now, in that Section 6 of your report that starts
15 on page 29 that we just discussed, it looks like you discussed
16 Alabama for every decade since the 1970s except the current
17 cycle, right?

18 A Correct.

19 Q And you didn't discuss the Alabama redistricting plans in
20 2010 because there's actually nothing wrong with the
21 application of the efficiency gap there, is there?

22 A Well, aside from the question of whether eight seats or
23 seven seats is the cutoff, which I don't have a strong
24 preference on, but I don't know how to distinguish between the
25 two cut-offs that have been proposed, it lines up in 2010.

1 Q Right. And you didn't include Arizona for the 2010s
2 because there's nothing wrong with the application of the
3 efficiency gap there, is there?

4 A I didn't include Arizona at all. You would have to show
5 me what the efficiency gap calculation for Arizona in 2012 was.

6 Q Okay. Do you have a reason why you didn't include
7 Arizona?

8 A I don't remember.

9 Q And if we turn to California, you discuss the plans in the
10 '80s and the 2000s, but you don't discuss the plans in the
11 '70s, '90s, or the current cycle. Is that also because they
12 line up, as you say, in the ones you didn't discuss?

13 A Well, California was an independent redistricting
14 commission, but I think the only Democratic map that trips your
15 threshold is Massachusetts, so I don't think -- I think
16 California probably lines up.

17 Q Right. So I guess I'm trying to understand if there's a
18 methodology behind why you chose to include some examples but
19 you chose not to include other examples?

20 A Well, sure, because I'm looking over time at specific --
21 for maps that are generally considered to be gross
22 gerrymanders, that you would get -- that you would get very
23 little discussion over. So, for example, the California map in
24 1982, the Burton-mander, everyone agrees that the Burton-mander
25 is a gerrymander, and I say the efficiency gap, to its credit,

1 gets that map.

2 There's a Texas map that everyone agrees is a
3 gerrymander. To its credit, the efficiency gap flags that map.

4 Q And so is your method --

5 A And so if there were just one map or two maps that really
6 make no sense, I wouldn't have -- I wouldn't have done this
7 section, but it's a fifth of the maps.

8 Q Right. So there's 136 plans in Dr. Jackman's database.
9 So you're saying that a fifth of them are what you would say,
10 quote, wrong in terms of the outcome?

11 A The efficiency gap produced -- the efficiency gap
12 statistic itself, which is being held forth as telling us a lot
13 about gerrymanders, it's the hallmark of it, produces results
14 that don't make sense.

15 Now, you can try to cabin it in with an intent
16 standard, and, again, I believe in Wisconsin you also suggested
17 you don't really have to do an intent standard in the motion to
18 dismiss response, but you can try to cabin it in with an intent
19 standard, but, again, the question is does the efficiency gap
20 metric itself make sense? And if it's really measuring
21 gerrymandering well, you shouldn't get a situation where
22 Democrats are drawing a map and they have almost everyone in
23 the legislature, and it ends up with a Republican lean.

24 Q Right. But when you said I chose to include Texas or
25 California because everybody knows they're a gerrymander, is

1 that the methodology that you used; you only included things
2 where everybody knows they're a gerrymander?

3 A Where there was broad agreement on gerrymanders. The
4 California map shows up throughout the literature. People are
5 writing about it. Again, it's the Burton-mander. It's
6 famously Bill Burton's contribution to modern art. The *Almanac*
7 *of American Politics* contemporaneously describes it that way.

8 Q And so you did a literature review to determine what
9 plans -- where everybody would consider them a gerrymander, is
10 that the methodology?

11 A Again, it's having studied redistricting and gerrymander
12 for the better part of a decade now. I have a sense for what
13 states are considered kind of the big gerrymanders and what
14 states aren't. If I had one or two maps, I wouldn't have done
15 this, but it's a fifth of your data set.

16 Q Well, it's not my data set.

17 I would like to go through some of the examples that
18 you discussed, some from your report and some that you
19 discussed just now, and I'm just going to try to work out how
20 the Plaintiffs' standard would apply. You know, you said that
21 you wanted to talk about how this works in reality.

22 THE COURT: Let me see counsel up here real quick.

23 (Bench conference as follows:)

24 JUDGE OSTEN: I'm not sure whether this is going to
25 the full report or as to his testimony, but, ultimately, as I

1 understand it, his testimony is limited in terms of I looked at
2 the efficiency gap, I looked at these maps, and concluded that
3 they're wrong 20 percent of the time. That's a quick summary.

4 MS. GREENWOOD: Right.

5 JUDGE OSTEN: There's a little bit of argument going
6 back and forth in terms of what the Plaintiffs' case is and why
7 you're here testifying to this, that, and the other, and that's
8 kind of opening the door to some irrelevant material.

9 You may -- in terms of what he actually knows, he may
10 be very well aware of the Plaintiffs' case and everything about
11 it, but, ultimately, that's not his field of expertise. Even
12 though he's got his J.D. degree, that doesn't really qualify
13 him to talk about this intent and effect and these other prongs
14 if it doesn't fall within his field of expertise, and the more
15 open-ended the questions are, particularly in terms of the
16 introduction, like the one you just gave as to what you're
17 going to ask about, the more you invite him to opine on things
18 that fall outside his expertise.

19 These guys may disagree with me a little bit, but I
20 would like to see you narrow your questions to what he was
21 actually admitted for.

22 JUDGE WYNN: Well, I do want to add, I think I would
23 like to allow the Defendants to have as much information and
24 testimony you want. It really ultimately goes to the weight of
25 it. My questions to you are not to limit your examination, but

1 to say to you, at the rate you're going, if you don't lay a
2 better foundation, I think it affects the weight tremendously.

3 So I was -- I was not trying to say don't ask him the
4 question. I want to make sure you understand that, but I think
5 ultimately this is weight testimony, and probably -- I kind of
6 do a few appeals, and I see how these things come out down the
7 road, which I don't want to limit it in that perspective. I do
8 tend to agree this looks like it's opinion matters when you go
9 to Jackman. If you don't lay a foundation, I think it's going
10 beyond his expertise to give an opinion. I think he can give
11 an opinion, just like the rest of us, as a layman, but experts
12 can specifically get into different grounds, but maybe after it
13 all comes out -- do you see where I'm going with it? I think
14 ultimately -- I guess I feel like I'm okay not restricting the
15 testimony at this point, but understand that it really is
16 moving toward weight.

17 MS. GREENWOOD: I'm only going to ask about that
18 section of the report, just parts of it, because that's what
19 was asked about it.

20 JUDGE OSTEEEN: I think our two comments kind of marry
21 with the fact that we just make to sure that you didn't feel
22 like you were unfairly cut off by anything that we said
23 earlier, and you make sure to try to confine your questions to
24 elicit an answer that's relevant to your case and not an
25 argument about intent, effect, and these other things.

1 MS. GREENWOOD: Maybe we could take a 5-minute break,
2 and I could come back and finish the cross-examination.

3 (Bench conference concluded.)

4 THE COURT: We'll take a 5-minute recess.

5 (At 11:18 a.m., break taken.)

6 (At 11:33 a.m., break concluded.)

7 JUDGE OSTEN: Hold on a second. I'm sorry. I
8 missed everyone standing up for Ms. Petty, but you can feel
9 free to do that again for her if you like.

10 All right. So I think there's -- I think everybody
11 understands where we are, but I want to clear up, as best I
12 can, some -- what may be some lingering confusion. Hope not,
13 but perhaps.

14 So let's see. I'm trying to figure out how to put
15 this in some perspective. Experts have been qualified in
16 different fields as we've proceeded throughout this trial, so
17 at this point I don't see any overlap. We don't have two
18 experts qualified in the same area. So as a result, I'm not
19 certain or I'm not convinced that the experts can be opining on
20 each other's -- directly on each other's opinions.

21 I can't remember now if it was Chen or Jackman, but
22 one of them said, The identity of the candidate doesn't make
23 any difference to my analysis. So I wouldn't expect that
24 expert to then be able to come in like this expert has said,
25 Here's an individual candidate. Here's what happened in that

1 election, so on and so forth, if that makes any sense.

2 This expert who is presently testifying was qualified
3 to testify with respect to US elections, including
4 congressional -- or congressional elections historically and
5 analysis -- congressional elections and analysis of electoral
6 history and redistricting, so that's this expert's field of
7 expertise. It's not whether or not the efficiency -- how to --
8 no, excuse me -- whether or not the efficiency gap is a good
9 calculation or a bad calculation as to gerrymandering, except
10 as may be relevant through his experience. But how the metrics
11 were put together and this, that or the other, he's not a
12 statistician. This expert is not. He also wasn't called to
13 testify about the pleadings overall in the case or what the
14 standard is that the Plaintiff is urging upon this Court and
15 those types of things.

16 So in terms of a foundation for an expert's
17 testimony, first of all, it has to be clear -- first, a
18 foundation has to be clear to make -- to establish that the
19 opinion the expert is about to render is an opinion that falls
20 within the particular expert's expertise.

21 So when we started out, I cut things off a little bit
22 because it seemed to me that this expert was testifying as to
23 whether seven or eight, in terms of efficiency gap and
24 statistical analysis, is appropriate or inappropriate or what;
25 and I didn't see any evidence that this particular expert had

1 the expertise to testify as to that particular fact, all right,
2 so a fact a layperson can testify to. And, in fact, Jackman
3 acknowledged that it had been eight or more in the first trial
4 and now they revised the standard to seven or more for whatever
5 conclusions or inferences can be drawn.

6 So you qualify the expert and then with respect to
7 the individual opinions that are sought with respect to the
8 expert's testimony, there has to be at least enough foundation
9 laid so that we, as a core, can make a determination, whether
10 it's now or later, as to what weight should -- first of all,
11 whether the opinion falls within the field and then, second, if
12 so, what weight should be assigned that opinion.

13 So any questions about that, Mr. Strach?

14 JUDGE WYNN: Let me add to that and join in with
15 Judge Osteen to be clear. Mr. Trende does have a heightened
16 knowledge and therefore he likely does -- and we likely will
17 find that he is an expert in certain areas. The other experts
18 are experts. When it comes down to evaluating their testimony,
19 it will fall upon us to grant a weight to each of their
20 testimony.

21 My purpose of directing the question to Mr. Strach
22 initially was not to restrict the testimony, but to give him a
23 heads up that if he wants this witness testimony to gain the
24 level of weight that I think he wants it to have, at least from
25 my perspective, it would be advisable to lay some more

1 foundation to do it, not necessarily to get an expert opinion,
2 but simply for a matter of weight.

3 So I want to be clear that he may proceed to testify
4 with an opinion, but it is the weight that is of great
5 consideration here. I was simply -- we didn't have to do it.
6 We just let you testify, but I didn't want you later on to come
7 back and say, well, we didn't know that the weight wasn't going
8 to be considered on that level. I wanted you to have the
9 opportunity to lay a little bit more foundation or to show why
10 it is his testimony should be given that weight. But
11 nonetheless, he may still -- if we qualify, which I think we
12 will, as an expert, he may still render an opinion, but then it
13 goes to the weight of it when you compare it with the other
14 testimony.

15 Overall, I think you should be allowed to testify.
16 In other words, don't feel restricted in allowing -- in getting
17 your witness to give the testimony. Be aware, because I was
18 only giving that as a cautionary perspective, when it comes to
19 our consider -- this is a bench trial, so we're not in the same
20 situation as a jury. We, as the judges, will take this later
21 on and you're not going to see us. I don't want to be in a
22 room somewhere and say, well, this didn't have the weight,
23 didn't do that, and you didn't know that's what's going to
24 happen.

25 So that was the reason I asked that question if you

1 decide you want to give more foundation. It wasn't to say, oh,
2 no, he can't say it. He can say it, but I want you to be clear
3 that it is a matter of weight and you need more weight to do
4 it.

5 Does that make sense to you, where I'm going with
6 that?

7 MR. STRACH: Your Honor, I don't have any questions
8 about it.

9 JUDGE WYNN: Okay. Well, I mean, I just want to be
10 clear. Isn't that -- the state of the law is such that if a
11 witness is qualified as an expert and you have another expert
12 testimony -- we have many trials of this sort -- it goes to a
13 matter of weight. What I tried to do was give you additional
14 consideration that if we're going to be looking at -- because
15 we are looking at weight, I was saying to you, at least from my
16 concern, that maybe this foundational thing, if you want that
17 to be looked at. Not necessary. That's the only point I'm
18 making to you. Do you understand?

19 MR. STRACH: Thank you, Your Honor.

20 JUDGE WYNN: Yes, sir.

21 JUDGE OSTEEEN: Do you have anything else to add?

22 JUDGE BRITT: No.

23 MS. GREENWOOD: Your Honor, I would be happy to close
24 my cross-examination.

25 JUDGE OSTEEEN: Well, let me --

1 MS. GREENWOOD: Let me explain.

2 JUDGE OSTEEEN: Go ahead. Well, what I was going to
3 suggest is, first, I am loathe to open up rulings of the Court
4 to a question-and-answer period; but if anybody has a question,
5 I'm happy to entertain it now about what was said. Any
6 questions? Everybody feel like they understand what the Court
7 was saying?

8 MS. GREENWOOD: Yes. Thank you.

9 MR. STRACH: No questions, Your Honor.

10 JUDGE OSTEEEN: All right. I don't -- there's a
11 little -- I'm not suggesting you're cutting corners on me a
12 little bit. Do you have any questions -- I mean, do you
13 understand what we've been talking about here? Do you want to
14 --

15 MR. STRACH: I mean, I suppose I understand. I don't
16 not understand enough to have any questions. That's about the
17 best way I can put it.

18 JUDGE OSTEEEN: All right. We're going to move
19 forward.

20 What I propose here is that you go ahead and do your
21 cross-examination.

22 I'll give you a little latitude on redirect to the
23 extent you felt like you misunderstood or you've narrowed your
24 examination unfairly as a result of the first comment. I'll
25 give you some latitude to reopen if there's some other material

1 you want to cover.

2 And if I give him that latitude, I'll give you that
3 latitude on recross. All right.

4 MS. GREENWOOD: Thank you.

5 MR. STRACH: Thank you, Your Honor.

6 JUDGE OSTEN: You may then -- you don't -- if I need
7 to know something, you can tell us; but if I don't, you can
8 just jump back into your cross.

9 MS. GREENWOOD: Thank you, Your Honor. I just wanted
10 to raise a question related to the admission of the expert
11 report.

12 JUDGE BRITT: I can't hear you, young lady. Can you
13 go back over there and talk into the microphone?

14 MS. GREENWOOD: I'm so sorry, Your Honor.

15 In this case, we had decided that if an expert
16 testified their expert report could be admitted as testimony,
17 but seeing as the initial examination only covered Part VI of
18 Mr. Trende's report, I would be -- I think that the Court
19 should only admit the qualification section of his report and
20 then Part VI. If that's the case, then I'm happy to just sit
21 down.

22 JUDGE OSTEN: Well, at least in terms of my
23 response -- and I'll consult with these other judges, but --
24 I'm the junior man up here. I don't mind starting the
25 conversation.

1 If there's an agreement that a report comes in
2 between the parties, I'm not going to rule in such a manner as
3 to undercut that agreement. So the question, it seems to me,
4 at this point is what weight are we going to assign to
5 different parts of the report as we review that report. So
6 from my perspective, to the extent the parties have stipulated
7 that the report comes in, I would let the report come in and
8 any lack of examination or any cross-examination would then go
9 to the weight of the report.

10 Now, there may be another -- some additional on that
11 analysis from my perspective in terms of does this opinion
12 match the expert's qualifications, but that takes place in
13 every case regardless of whether it's a report or testimony or
14 anything else.

15 So let me see if these other judges --

16 JUDGE BRITT: Well, I agree with what you said and
17 particularly the stipulation. If they stipulated to the
18 admission of a report, it's in.

19 JUDGE OSTEEEN: Do you understand that? All right.

20 MS. GREENWOOD: Thank you, Your Honors. I have no
21 further questions.

22 JUDGE OSTEEEN: All right. Mr. Strach.

23 MR. STRACH: Thank you, Your Honor. Thank you for
24 the clarification. I will cover some of the other areas of the
25 report, and I certainly understand that if the Court disagrees

1 with the foundation for the parts that we're going to cover
2 that that will impact how the Court looks at it, but I do think
3 it's important at least to get the testimony on the record.

4 JUDGE OSTEN: Understood.

5 JUDGE WYNN: What's important is you go ahead and
6 give as much information as you want. We've already indicated
7 how we're going to look at it, but that shouldn't limit in any
8 way -- you shouldn't feel limited in terms of what you are
9 being able to present here today.

10 MR. STRACH: Thank you, Your Honor.

11 REDIRECT EXAMINATION

12 BY MR. STRACH:

13 Q Mr. Trende, let's take a look at -- we talked about your
14 first opinion on page 7, so I will not repeat that.

15 JUDGE BRITT: Page 7 of Exhibit 5101?

16 MR. STRACH: Yes, Your Honor, that's where we were.

17 BY MR. STRACH:

18 Q So, Mr. Trende, if you'll now look at page 9, Subheading
19 II says: "The efficiency gap is not easy to calculate." Will
20 you just simply tell the Court what your opinion there is and
21 I'll ask any follow-up if I think it's necessary?

22 A Yes. So the question is how easy is the efficiency gap
23 actually to calculate and I've seen the claim made that it's
24 very easy to calculate. I understand Dr. Jackman did it on the
25 stand. If you have the actual votes, doing the reduced method

1 is pretty easy. You just multiply two times the vote share
2 minus the number of seats and you have your efficiency gap
3 centered on 50 percent.

4 When you have -- when you're doing the full version,
5 which is what Dr. Jackman utilizes here -- and to emphasize, I
6 stayed as far away from Dr. Chen's report and Dr. Jackman's
7 report as I could. There's not a lot -- you're absolutely
8 right. There's not a lot of clash between us. I'm looking at
9 it from just a different angle than Dr. Jackman is, the
10 practical impact of it. So I don't have opinions -- or offer
11 opinions on whether it should be seven seats or eight seats or
12 whether we should use the full or the reduced or whether you
13 should use seats or percentages. I just in my report look at
14 the practical implications of it.

15 Anyway, so if you have all the votes, the efficiency
16 gap -- in an Excel spreadsheet, you can calculate it pretty
17 easily with a little bit of practice. In an R -- if you use a
18 programming language like R, you can calculate it immediately.
19 The problem is a lot of times you have these missing data. You
20 have elections that aren't contested and you have to figure out
21 a way to do it.

22 Now, I read the Stephanopoulos and McGhee article,
23 and the suggestion there was you can use -- there's a range of
24 options you can use ranging from the type of very sophisticated
25 modeling that Dr. Jackman is doing to looking at old

1 congressional results and picking a result that you think is
2 reasonable, but those choices you make have impacts on how the
3 efficiency gap turns out and things like --

4 MS. GREENWOOD: Your Honor, I would like to object to
5 the extent the witness is offering an opinion about which
6 method of imputation is better. I think that's beyond what
7 he's been qualified for. I'm happy for that to --

8 JUDGE WYNN: Just bring it out on cross-examination.

9 MS. GREENWOOD: Thank you. I will.

10 JUDGE BRITT: You may resume.

11 THE WITNESS: Thank you, Your Honor.

12 I don't know which one is better, but I do know that
13 there is substantial differences in ease of execution in these
14 different models. So if you have a year where there aren't --
15 where there are a lot of uncontested elections, you're going to
16 have to figure out how you're going to account for these and
17 the ways for doing those are not something that you can do with
18 just a pen and paper.

19 BY MR. STRACH:

20 Q And, Mr. Trende, do you have qualifications and experience
21 that you believe are sufficient to allow you to -- not give an
22 opinion on which one is a better way of doing it, but to
23 identify the fact that there are differences?

24 A Yes, I mean, it's -- the Stephanopoulos and McGhee article
25 is a Law Review article; and having taken a lot of statistics

1 courses, I have at least a fundamental understanding of how
2 numbers in statistics work.

3 Now, I'll admit up front I can't offer critique of
4 Bayesian hierarchical modeling using Markov Chain Monte Carlo
5 runs with 25,000 burn-in iterations and 150,000 iterations,
6 saving every 30th iteration, like Dr. Jackman does. I can't
7 say whether that is a good method or a bad method and don't
8 purport to.

9 I just want -- like I said, I saw a couple times the
10 efficiency gap is easy to calculate and that is true at a
11 superficial level if you have all the data. If you don't have
12 the data, I just wanted it to be up front that this is kind of
13 what's involved with calculating the efficiency gap at that
14 point. It's not something you can do with a pen and paper,
15 unless you just pick a number.

16 Q All right. Let's turn to page 14 of your report.
17 Mr. Trende, do you have any knowledge or experience in your
18 background regarding systems of government that are of a
19 proportional representation nature?

20 A Certainly. It's something you encounter in the basic
21 political science course, a course in comparative politics like
22 I took in undergrad. It's something you encounter as an
23 elections analyst following elections across the world. You at
24 least become aware of proportional representation and how it
25 works.

1 Now, I would not purport to be a specific example in
2 what the cutoff is in Germany, for example. I don't know that.
3 What I do know -- or Israel. What I do know is that different
4 countries that follow proportional representation have a cutoff
5 that you have to come across -- above that threshold; and that
6 generally once you cross that threshold, you rescale it and the
7 seats are awarded on a percentage-to-seats basis.

8 Q And have you done any work or analyzed proportional
9 representation systems in other countries as part of your work
10 with RealClearPolitics?

11 A Well, again, at a very basic level. I mean, I agree
12 this -- it's so common knowledge it could almost be lay
13 testimony that this is how a proportional representation system
14 works. You cross a threshold and you get your seats awarded
15 past that threshold on relationship of seats to votes. That's
16 kind of the capital proportional, capital representation
17 method.

18 Q What are you trying to -- what opinion are you giving with
19 the figure on page 14 of your report?

20 A So I say the efficiency gap is proportional representation
21 for first-past-the-post system. Now, what a
22 first-past-the-post system is is basically what we have here in
23 America. The votes are cabined in by congressional districts;
24 and if you get a plurality or, in a state that has a runoff,
25 the majority of the vote, you win that district.

1 And so the practical effect of the efficiency gap is
2 to tie the number of seats you can get awarded to the number of
3 votes you can get awarded. It's just -- instead of a
4 one-to-one -- roughly one-to-one relationship like you would
5 get in a pure proportional representation, the proportion is
6 two-to-one. And this is taken from Dr. McGhee's initial
7 article in *Legislative Studies Quarterly* on the efficiency gap
8 and I believe -- I'm not -- it's from the McGhee article. Oh,
9 and from the Stephanopoulos and McGhee article as well that
10 when a party -- it's set up to waste equal number of votes.

11 And so the effect of this is that you do not get
12 proportional representation, capital P, capital R, where it's a
13 roughly one-to-one relationship like you would get in some of
14 these parliamentary democracies, but you do have it as a
15 two-to-one relationship, which is still a proportion.

16 MR. STRACH: Thank you, Mr. Trende.

17 Your Honor, that's all I have.

18 JUDGE OSTEN: All right. Cross-examination?

19 RE CROSS-EXAMINATION

20 BY MS. GREENWOOD:

21 Q Hello again, Mr. Trende.

22 A Hello again.

23 Q You said that you have expertise here -- sorry -- that
24 your expertise here is in the practical application of the
25 efficiency gap, is that right?

1 A That's correct. Well, I think the practical application
2 of the efficiency gap falls within my generalized expertise.

3 Q Yes. Thank you. And so you're not an expert then in the
4 statistical properties of the efficiency gap, is that right?

5 A I understand how the efficiency gap works statistically.
6 As far as giving an opinion like Dr. Jackman should have done
7 seven seats versus eight seats or whatever, no, I don't think I
8 can do that and wouldn't purport to.

9 Q And then just a few other areas that Dr. Jackman looks at.
10 He looks at calculating a threshold, but would you agree that's
11 a technical area that doesn't fall within your general
12 expertise?

13 A I mean, I understand how Dr. Jackman calculated his
14 threshold and I understand the regression analysis behind it.
15 Whether or not he should have done one seats or two seats, I'm
16 not sure there is an answer to that question, but I don't in my
17 report question the fact that he did it. I just wanted to
18 point out the fact that he made that choice, that instead of
19 doing -- basing regression analysis on two seats, which is what
20 the Stephanopoulos and McGhee article puts forth, he bases his
21 regression analysis on a half seat or one seat.

22 Q Right. But you're not offering any opinions on the
23 technical aspect of the method that he used to calculate the
24 threshold?

25 A No. I'm just pointing out that there are these different

1 choices that could be made.

2 Q Right. And then another area that Dr. Jackman's analysis
3 included is imputations for uncontested elections, but that's
4 also a technical statistical expertise that doesn't fall within
5 your general area of expertise, is that right?

6 A So initially I did kind of a sanity check on his results
7 to see if they produced sensible results, kind of like I did in
8 the main portion of my presentation, and found out that there
9 were some imputations that produced negative results. I think
10 that's something I can do. I think anyone can do that. He
11 fixed it in a subsequent article.

12 But as far as criticizing the application of Bayesian
13 hierarchical modeling, no, I would not do that, aside from to
14 point out that in previous articles it's not like that's how
15 you have to do it, at least as suggested in the Stephanopoulos
16 and McGhee article. There's a wide range of things that they
17 say you can do.

18 Q Thank you. And then with Dr. Jackman's perturbation and
19 sensitivity testing, that's also a technical area that falls
20 outside of your general expertise, is that right?

21 A Again, I know what he's doing. I can read a perturbation,
22 but I don't take issue with his perturbations in my report.

23 Q Right. And can I just confirm that at the end there you
24 were saying that proportional representation has a one-to-one
25 relationship and the efficiency gap doesn't have a one-to-one

1 relationship between seats and votes?

2 A So I tried to distinguish between capital P, capital R
3 representation. You're still putting the votes to seats in a
4 proportion. It's a two-to-one portion rather than a one-to-one
5 proportion, so -- but it's not proportional representation as
6 people refer to it when they're talking about parliamentary
7 democracies.

8 MS. GREENWOOD: Thank you. No further questions.

9 JUDGE OSTEN: Anything in response to that?

10 MR. STRACH: Nothing, Your Honor. Thank you.

11 JUDGE OSTEN: Thank you, sir. You may step down.

12 (At 11:57 a.m., witness excused.)

13 THE COURT: Where does that leave us for today? Are
14 we finished for today?

15 MR. STRACH: Our witness won't be available until
16 tomorrow morning, as we identified, and we'll just be subject
17 to what Plaintiffs want to do about their rebuttal.

18 JUDGE OSTEN: That's right.

19 MS. EARLS: Your Honor, we do not need to call a
20 rebuttal witness at this time.

21 JUDGE OSTEN: All right. Yes, sir. You've been
22 quiet over there, Mr. Speas.

23 MR. SPEAS: I have.

24 JUDGE OSTEN: I'm glad to see you rise to speak.

25 MR. SPEAS: Thank you, Your Honor. I believe I speak

1 for all the counsel when I say we want to be able to answer
2 your questions tomorrow crisply and clearly; and if there's any
3 guidance that the Court might have for the parties as they try
4 to get ready for the oral arguments tomorrow, we would
5 appreciate it.

6 JUDGE OSTEEEN: All right. Well, I prefer the
7 sandbagging method myself. It looks like I'm not alone in
8 that, Mr. Speas. We appreciate your invitation greatly, but we
9 decline it respectfully.

10 All right. We'll be in recess -- what time -- is
11 your witness getting here sometime today? Is 8:30 too early?

12 MR. STRACH: We can do 8:30, Your Honor.

13 JUDGE OSTEEEN: All right. Is everybody good with
14 8:30?

15 MS. GREENWOOD: That's fine with us. Thank you.

16 JUDGE OSTEEEN: Then we'll start tomorrow morning at
17 8:30 and hear the last of the testimony, and then I think I
18 said yesterday a couple hours. I'm not suggesting you should
19 take it all if you don't need it.

20 But anything on time you want to talk about?

21 JUDGE BRITT: Only that we're going to get through
22 tomorrow.

23 JUDGE OSTEEEN: That's it. We'll see you tomorrow
24 morning at 8:30.


25 (At 11:59 a.m., proceedings adjourned.)

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C E R T I F I C A T E

I certify that the foregoing is a correct transcript
from the proceedings in the above-entitled matter.

Date: 10/23/2017



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